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UG(1) — Bot
(Sub / Gen)

2019

Time : 3 hours

Full Marks : 75

Pass Marks : 23

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Answer **five** questions, selecting at least **one** from each Group, in which

Q. No. 1 is compulsory.

1. Write, in brief, about **five** of the following :

3×5 = 15

Seety Eight - (a) Well labelled diagram of plant cell
(Description not required)

(b) Ovule of Cycas

27 (c) Gemma cup of Marchantia

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(Turn over)

(d) Interphase of Meiosis I

write (e) L. S. of apothecium cup of **Peziza**

(f) Heterocyst and its role

(g) Macrandrous sps. of **Oedogonium**

(h) Mendel's law of Independent Assortment

Group – A

one - two 2 Describe the thallus structure and method of Asexual reproduction in **Oedogonium**. 15

five to three 3. Give an illustrated account of post-fertilization changes in the life-cycle of **Batrachospermum**. 15

4 Write an essay on the economic importance of lichens. 15

5. Give on illustrated account of life-cycle of the fungus which causes 'Wart disease of Potato'. 15

fourty seven 6. Describe, in brief, the structure of sporophyte of **Marchantia**. 15

Group – B

7. Describe the ultrastructure of chromosome. 15
8. What is Mutation ? Discuss its role in crop improvement. 15
9. Write short notes on any **two** of the following :
 $7\frac{1}{2} \times 2 = 15$

Fourty Two-

- (a) Rhynia
- (b) Linkage
- (c) L. S. of Ovule of Pinus
- (d) Mitochondria
10. Explain mechanism of crossing over. 15
11. Give botanical names, families and economic importance of any **five** of the following : $3 \times 5 = 15$
- (a) Rice
- (b) Arhar
- (c) Sugarcane
- (d) Ground nut
- (e) Brinjal
- (f) Tomato



AM – 3/1 (15,000)

(3)

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